

ABSTRACT

A method for forming a film by a plasma CVD process in which a high density plasma is generated in the presence of a magnetic field is described, characterized by that the electric power for generating the plasma has a pulsed waveform. The electric power typically is supplied by microwave, and the pulsed wave may be a complex wave having a two-step peak, or may be a complex wave obtained by complexing a pulsed wave with a stationary continuous wave of an electromagnetic wave having the same or different wavelength as that of the pulsed wave. The process enables deposition of a uniform film having an excellent adhesion to the substrate, at a reduced power consumption.